Rocky Flats
Environmental Technology Site

Revision 1

KAISER-HILL TEAM

QUALITY ASSURANCE
DOE ORDER 5700.6C
IMPLEMENTATION PLAN

APPROVED BY: _____ / R. G. Card / 1/31/97
President, Kaiser-Hill Company, L.L.C. Date

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The signatures on this page document each organizations concurrence that, for those areas under their cognizance, this write-up is accurate, factual, and correctly reflects the organization's position.

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LIST OF EFFECTIVE PAGES

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1 - 27	1/31/97	Rev. 1

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1.0 INTRODUCTION

This document was developed by Kaiser-Hill Company, L.L.C. (Kaiser-Hill) with input from their four Principal Subcontractors. Kaiser-Hill and their four Principal Subcontractors comprise the Kaiser-Hill Team. The four Principal Subcontractors are DynCorp of Colorado, Inc. (DCI), Rocky Mountain Remediation Services, L.L.C. (RMRS), Safe Sites of Colorado (SSOC), and Wackenhut Services, L.L.C. (WSLLC). This document is the Kaiser-Hill Team Implementation Plan (IP) for the Department of Energy (DOE) Order 5700.6C, Quality Assurance (hereafter referred to as the Order) and is submitted to the DOE Rocky Flats Field Office (RFFO) in accordance with Order requirements relative to recent Site Quality Assurance Program (QAP) revisions. This Order IP takes precedence over other previously approved Site Implementation Plan documents dealing with quality (e.g., Maintenance Implementation Plan, Appendix "D"; Quality Assurance Plan, Building 559 Operations; etc.) and supersedes the previous Order IP (Rev. 0) dated February 11, 1992.

1.1 Background

On July 1, 1995, Kaiser-Hill became the Integrating Management Contractor (IMC) at Rocky Flats Environmental Technology Site (Site) under a performance-based contract specified by DOE. In executing the IMC role, Kaiser-Hill has direct responsibility for establishing the scope and responsibility for work, identifying standards for performance of work, integrating the work of the Principal Subcontractor companies, and providing performance oversight. The Site is an aging DOE facility in the post production, cleanup, and closure phase of its life cycle. There is no intent to resume production operations, however, some War Reserve (WR) activities are on-going as part of the overall phaseout of the program. The Kaiser-Hill Team has been tasked to stabilize and consolidate special nuclear material, process waste, and perform decontamination and decommissioning environmental remediation activities.

Many tasks (including WR) are considered activities that have the potential to cause radiological harm, and as such, are addressed under a separate DOE approved IP for Code of Federal Regulations (CFR) 10 CFR 830.120, Quality Assurance Requirements (hereafter referred to as the Rule). However, there are numerous Site support activities that typically do not have the potential to cause radiological harm. Some examples include operation and maintenance of the Site steam plant, the sewage treatment facility, and other Site baseline activities as identified in the Site Master Activity List (MAL). These activities, as well as others are governed by quality management practices which are or will be implemented as discussed in this Order IP.

Kaiser-Hill developed a Quality Assurance Program (QAP) for the Kaiser-Hill Team at the Site which has been approved by DOE. The QAP, as documented in the Site QA Manual, discusses how the QA criteria of the Rule and the Order are being met and describes the roles and responsibilities of the IMC and the four Principal Subcontractors.

2.0 IMPLEMENTATION PLAN SUMMARY

The implementation of the QA criteria for the Order, are discussed in this Order IP. It is similar to the Rule IP in that it addresses the same quality criteria, however, implementation and management of all issues will be addressed separately through each respective IP. This Order IP provides information regarding implementation of the Site QAP for activities without the potential to cause radiological harm. Kaiser-Hill, the Principal Subcontractors, and applicable lower tier subcontractors are accountable for implementing the Site QAP requirements either through the Site program, or through their own Kaiser-Hill or Principal Subcontractor approved quality assurance program plans as applicable.

Implementation issues are identified in Attachment 1, Implementation Issue Matrix for Quality Assurance DOE Order 5700.6C Implementation Plan and include budget work authorization documents, (subject to change/revision) corrective action tasks, schedules, and significance levels.

3.0 GENERAL INFORMATION

This IP is based on Quality Assurance (QA) baseline assessments conducted by the Kaiser-Hill Team against the existing Site QAP and related infrastructure programs and procedures. Attachment 1 lists the QA Criteria of DOE Order 5700.6C, the infrastructure programs that support each criterion, the implementation issues, and additional supporting information such as corrective action tasks, tracking, schedules, and funding. Implementation activities (i.e., corrective actions) and associated compensatory measures are recorded and have been entered into the Plant Action Tracking System (PATS).

4.0 APPLICABILITY OF DOE ORDER 5700.6C

DOE Order 5700.6C applies to Site activities without the potential to cause radiological harm.

5.0 SAFETY AND IMPLEMENTATION GUIDES AND TECHNICAL STANDARDS

The Site QA Manual contains the Kaiser-Hill Team QA requirements. These requirements were selected by a group of subject matter experts through an iterative process (described in the QAP), to be a necessary and sufficient set of QA standards. The requirements were selected from the following technical standards:

Note: Attachment I of DOE Order 5700.6C, dated August 21, 1991, has been superseded by the guidance in G-830.120 Revision 0, Implementation Guide for use with 10 CFR 830.120 Quality Assurance.

- DOE Order 5700.6C, Quality Assurance
- ASME-NQA-1-94, Quality Assurance Requirements for Nuclear Facility Applications, 1994

5.0 SAFETY AND IMPLEMENTATION GUIDES AND TECHNICAL STANDARDS (continued)

- ANSI/ASQC-E4-1994, Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs
- EPA-5360.1, Program and Policy Requirements to Implement the Mandatory Quality Assurance Program
- ASTM-C-1009-89, Standard Guide for Establishing a Quality Assurance Program for Analytical Chemistry Laboratories Within the Nuclear Industry
- DOE/AL-QC-1,1995, Quality Criteria
- ANSI/NCSL Z540-1-1994, Calibration Laboratories and Measuring and Test Equipment - General Requirements

Other safety and implementation guides and technical standards considered in the development of the QA requirements are listed in the Site QA Manual.

Using necessary and sufficient standards developed in conjunction with DOE, Kaiser-Hill will develop a set of requirements (which are to ultimately replace the set contained in the DOE/Kaiser-Hill contract) in the form of Standards/Requirements Identification Documents (S/RIDs). When the S/RIDs are approved by DOE in Authorization Agreements, they will replace the list of imposed DOE Directives in the Kaiser-Hill and Principal Subcontractor contracts as applicable. When the QA S/RID is approved, it will supersede the Quality Assurance Program Criteria section of the Site QA Manual. (Note: If the approved QA S/RID results in the need to change the QAP, such changes will be made.)

6.0 BASELINE ASSESSMENTS

The Kaiser-Hill Team performed QA baseline implementation assessments for their respective areas of responsibilities. This baseline determined whether the Site implementation of infrastructure programs and procedures incorporated the applicable QA requirements of DOE Order 5700.6C.

These baseline assessments were performed by the Kaiser-Hill Team from July 21, 1995, through January 30, 1996. The IMC also provided oversight and technical assistance to the Principal Subcontractors. The process was as follows:

- Sub-teams from the Kaiser-Hill Team identified specific activities that fell into each company's respective area of responsibility.
- The sub-teams determined the programs and procedures used to control those activities.
- With guidance from the sub-team, responsible managers along with their technical personnel performed baseline assessments to determine whether the QA requirements were incorporated into the Site infrastructure programs and procedures. Identified issues were documented in Compliance Summary Reports in accordance with 1-Q05-ADM-02.26, Standards Identification, Assessment, and Noncompliance Processes.

6.0 BASELINE ASSESSMENTS (continued)

- Representatives of organizations responsible for the Site infrastructure programs and procedures performed an additional baseline assessment. The objective of the additional assessment was to determine implementation issues associated with the infrastructure programs and procedures such that Kaiser-Hill has confidence in the functionality of the programs and procedures to support the Site mission.
- Open issues are included in Attachment 1. These items have been entered into and are being tracked through the PATS process.

6.1 Verification of DOE Order 5700.6C Baseline Assessment

The IMC conducted an independent assessment (ref. Audit No. 95-0401; 1/96) to verify that information gathered in the QA baseline assessments accurately reflected the QAP implementation status for the Site. The verification included a sample of the implementation issues identified in the Compliance Summary Reports. The verification found that the "shall" statements contained in the Order are reflected as requirements in the upper-tier governing Site documents and that those requirements flow down into the implementing procedures sampled in the verification. Additionally, this Order IP was evaluated against ongoing routine assessment activities of the Kaiser-Hill Team over the course of the 1996 calendar year. Assessment results are documented within each company's respective Management Assessment and Independent Assessment programs, with applicable quality implementation issues included in Attachment 1 of this document.

7.0 ADDITIONAL ACTIVITIES

The additional activities necessary to meet the requirements of DOE Order 5700.6C have been evaluated using the criteria of Appendix 1. Those activities that are considered implementation issues have been described and included under Attachment 1.

8.0 GRADED APPROACH

A graded approach is the process by which the levels of analysis, documentation, and other actions necessary to implement QA requirements are based on facility/activity specific factors. These factors include budget, risk to the worker, public, and/or environment, life cycle stage of the facility, etc.

DOE Order 5700.6C is applied to the Site through the use of a graded approach (ref. Appendix 2). In order to ensure the most efficient use of resources, a graded approach is used to determine the rigor with which the QA requirements are applied to a specific facility or activity. This approach provides the flexibility to implement programs in a way that best suits the facility or activity while maintaining full compliance with the Order.

8.0 GRADED APPROACH (continued)

For example: Under Criterion 2, Training and Qualification, training of maintenance crafts will be focused on safety and other regulatory requirements training (e.g., Occupational Safety and Health Administration requirements). Other maintenance training and qualification will be limited to maintaining craft job proficiency at the journeyman level. Under Criterion 3, Quality Improvement, trending of maintenance history data will be accomplished for specific buildings and equipment based upon a graded approach. Maintenance history data will not be maintained for all buildings or equipment. Item characteristics, process implementation, and other quality-related information will be reviewed and the data analyzed to identify items, services, and processes needing improvement based upon a graded approach. Under Criterion 5, Work Processes, corrective, preventive, and predictive maintenance will be accomplished for specific equipment based upon a graded approach. Not all items will be maintained to prevent their damage or deterioration.

The Kaiser-Hill Team member responsible for any given activity is required to determine the appropriate graded approach to be used to achieve the necessary level of implementation for activity requirements. This judgment is based on detailed knowledge of the specific requirements, features, resources, needs, goals, and interface with other organizations and facilities. The graded approach utilized to comply with a QA requirement for a given activity is developed by application of the best judgments of a group of experts who collectively have broad knowledge of the applicable facilities and activities, of the safety management program for applicable facilities and activities, and of the collective wisdom behind the established regulatory requirements as defined in regulations and amplified by related technical standards and guides. Most applicable sitewide documents implementing a Site infrastructure program, (QA requirements) or a part thereof, have provided, as appropriate, the level of analysis, documentation, and actions necessary to comply with the QA requirements based on a graded approach. All best judgements involving graded approach for a given project or activity must be documented, if not already done so, within applicable Site procedures.

Additionally, procedures and other documents which implement Site infrastructure programs with direct impact on work and work processes receive independent review under the existing Site infrastructure. This independent review utilizes an interdisciplinary technical evaluation process to evaluate safety issues and (implicitly) quality aspects.

The following general criteria are guiding principles in the application of graded approach by the Kaiser-Hill Team:

- Graded approach may not be used to exempt a process, item, activity, or program from meeting requirements or to avoid compliance with federal, state, and local regulations.
- The higher the risk, the more rigor is required to ensure that requirements are met.
- Site facilities and activities are graded as either nuclear or non-nuclear facilities or activities.

8.0 GRADED APPROACH (continued)

- The program owner organization (because it has detailed knowledge of processes, items, activities, and programs) uses best judgment in determining and documenting the rigor of requirement implementation, administrative controls, and business practices to be applied to ensure requirements are met.
- Implementing procedures and work plans reflect the use of the graded approach by setting forth direction for the amount of analysis, documentation, and actions required to ensure requirements are met.

Graded approach has been implemented to meet the QA requirements considering and using (individually or in combination) the following specific criteria:

- The relative importance to safety, safeguards, and security - The relative importance of an activity or item to safety, security, safeguards, environment, or mission provides the basis for establishing the order of completion or the depth, rigor, and thoroughness in applying the requirement. (For example: the corrective action process provides for grading deficiencies and other action items by significance level. Corrective actions are scheduled and accomplished based, in part, on significance.)
- The magnitude of any hazard involved - Consideration of the risks and hazards of the facility allows the implementing organization to focus resources on the activities most likely to reduce the associated risks and hazards by tailoring the implementing actions to the specific risks and hazards of the individual facilities and activities. (For example: Actions to inventory and consolidate hazardous chemicals within a given facility, and thus reduce industrial hazards to workers, is given high visibility/priority within the Rocky Flats Strategic Plan.)
- The life cycle stage of a facility - The consideration of the life cycle stage of a facility permits the implementing organization to assess the appropriate application for the current life cycle stage of the facility. (For example: A facility that is scheduled for near-term decommissioning and subsequent demolition, should not require as much preventive maintenance of applicable equipment as a facility scheduled to operate for a longer period of time.)
- The programmatic mission of a facility - The programmatic mission of a facility, including passive missions such as hazards confinement and material storage, may dictate the degree of gradation for the implementation of a requirement. (For example: An in-process Operable Unit undergoing a CERCLA cleanup should have more rigorous and a larger number of requirements than an undisturbed hazardous waste site.)
- The particular characteristics of a facility - The particular characteristics and use of a facility influence how quality requirements are applied. (For example: The Site steam plant should have more stringent work processes governing their conduct of operations than office buildings.)
- Any other relevant factor - One such factor might be phased implementation of a requirement (by time or by facility). Phased implementation of a requirement minimizes the impact on resources and allows for a learning curve. (For example: The procedure preparation process is being phased in over time to minimize the impact on resources.)

8.0 GRADED APPROACH (continued)

Graded approach has been utilized during the development of the Site infrastructure programs and implementing procedures to comply with the requirements of the Order.

9.0 RESOURCE ASSESSMENT

Applicable budget information, corrective action tasks, and schedules for items identified by the baseline assessments are provided in Attachment 1. Quality Assurance Program implementation resources are assessed annually during the budget cycle.

10.0 PRIORITIZATION

Implementation issues identified in the QA baseline assessment have been prioritized in accordance with the Site Commitments Management and Corrective Actions Process. The level of importance to be placed on the correction of a deficiency or action request is evaluated for impact by considering the types of risks that may be encountered, consequences of these risks, and the frequency or probability of occurrence of like deficiencies or action requests. Significance levels are assigned based on the evaluation in relation to the impact on health, safety, the environment, regulatory compliance, safeguards and security, or the operation or mission at the Site. Significance levels are classified as:

-	High	Significant Impact	(Significance No. of 7 to 11)
-	Medium	Moderate Impact	(Significance No. of 4 to 6)
-	Low	Minor Impact	(Significance No. of 1 to 3)

The significance levels for the implementation issues are included in Attachment 1.

11.0 MILESTONES AND SCHEDULES

Milestones and schedules have been developed with completion dates for identified implementation issues shown on Attachment 1. Tasks are entered into the Plant Action Tracking System where they are tracked through the Commitments Management and Corrective Actions Process. Detailed corrective action plans are available through the Kaiser-Hill Commitments Management organization.

12.0 EXEMPTIONS

At this time, no exemptions from the criteria of DOE Order 5700.6C are being requested.

13.0 COMPENSATORY ACTIONS

Compensatory actions for identified implementation issues are documented in Attachment 1.

14.0 TRACKING

Implementation issues identified in Attachment 1 are being tracked by the PATS process.

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Criteria for Including Issues in the Quality Assurance DOE Order 5700.6C Implementation Plan

Site programs and functions such as fire protection, conduct of operations, maintenance, and others are recognized to be applicable to DOE Order 5700.6C; however, detailed plans for these programs and functions will be addressed by other DOE Orders. The following Implementation Issues are included in the DOE Order 5700.6C Implementation Plan:

1. QA issues that are not governed by another DOE Order or DOE Directive.

2. Programmatic QA issues not addressed by Implementation Plans or other planning documents associated with another DOE Order or DOE Directive.

3. Implementation deficiencies. Implementation means that where a requirement applies, a process is established (i.e. formal training, assessments, and/or inspection/acceptance testing) or a tool is available for use (i.e. procedure, design specifications, and/or procurement records) which fulfills the intent of the requirement and allows work to be performed in a safe and effective manner. Lack of such a process or tool is an implementation deficiency.

Lack of budget/resource issues that remain following graded approach consideration, and that jeopardize development and/or implementation of the program/process are considered to fall under the category of Implementation Issues.

Compliance issues are not included in the Implementation Plan. Compliance is the day-to-day utilization of existing and approved processes/tools used during the actual performance of work.

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Graded Approach to the Requirements of DOE Order 5700.6C

The criteria of DOE Order 5700.6C are applied in a graded approach as described below:

(1) Program - There is one Kaiser-Hill Team Quality Assurance Program and it is documented within the Site Quality Assurance Manual. It describes the roles and responsibilities of the Kaiser-Hill Team as well as the principal documents that implement the QA requirements. Implementing documents (procedures) have been developed, as appropriate, to utilize a graded approach for implementing the QA requirements and procedural instructions. Strategic planning for the Kaiser-Hill Team has focused on reducing the risks and hazards in the various Site facilities in order to accomplish the most mission work possible with a reasonable schedule and within an allocated budget.

(2) Personnel Training and Qualification - Requirements for the indoctrination, training, and continuing (refresher) training are commensurate with the scope, complexity, and nature of the assigned duties, or the activity, to be performed. For example, training of maintenance crafts will be focused on safety and other regulatory required training (e.g., Occupational Safety and Health Administration requirements). Other maintenance training and qualification will be limited to maintaining craft job proficiency at the journeyman level.

(3) Quality Improvement - It is important that all deficient conditions and nonconforming items be identified; therefore, it is not appropriate to apply graded approach to their identification. Items that do not conform to requirements are controlled to prevent inadvertent installation or use. Graded approach is built into the corrective action process. Each item that requires corrective action is evaluated and ranked according to its significance. Typically, the higher the significance or risk level, the more rigorous are the required corrective action elements. For example, items with a high enough significance level are required to have the corrective actions independently verified. In addition, the cause analysis procedure requires the more significant events to receive a more rigorous cause analysis. Maintenance history data will not be maintained for all buildings or equipment. Item characteristics, process implementation, and other quality-related information will be reviewed and the data analyzed to identify items, services, and processes needing improvement based upon a graded approach.

(4) Documents and Records - Graded approach is applied to the preparation, review, approval, issue, distribution, use, and revision of documents based on their relative importance, the intended recipients, the intended use, the applicability of the document, and the need to know. The more important the task, the more controlled and detailed the work process document will be, including its associated review and approval process. Graded approach has limited application in the specification, preparation, review, approval, and maintenance of Site records. If a document is, or will become, a record, it is governed by the Records Management Program. Government records must meet the requirements of the National Archives and Records Administration (NARA). NARA dictates

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how records are to be maintained and provides approved and graded retention schedules. NARA requirements, along with other applicable technical standards, are incorporated within the Site Document Control and Records Management programs.

(5) Work Processes - Graded approach is built into Site work processes through the infrastructure programs and procedures. These include but are not limited to, Policies and Procedures, Issues Management, Lessons Learned, Configuration Management, Training and Qualification, Emergency Management, Security, Engineering, Maintenance, Conduct of Operations, Occurrence Reporting, Procurement, and Waste Management. A brief description of example work processes follows:

- Occurrence Reporting

Based on the reporting requirements established by DOE, Kaiser-Hill provides a graded approach to the implementation of DOE reporting requirements. Each event or occurrence is categorized by significance. The categories in descending order of significance are Emergency, Unusual Occurrence, and Off-normal Occurrence, all of which are reported formally to DOE. Occurrences that fall outside of these three categories do not require formal reporting. Grading is also built into the need to hold a management fact-finding meeting and in the rigor of the cause analysis. If the facts are known and documented, a meeting may not be required. When the facts are not known, a meeting may be required to determine the facts. The rigor of the cause analysis and the resources to be applied to the cause analysis of an occurrence are dependent on the significance of the event and the potential risk the event or condition poses to the workers, the public, the environment, or the facility. However, the majority of Occurrence Reports use direct derivation methodology for cause analysis.

- Maintenance

The Integrated Work Control Program (IWCP) provides a maintenance process for Operations Managers to identify, report, evaluate, assign resolution responsibilities, and close out deficiencies, modifications, and work requests. The process provides a graded approach based primarily upon importance to safety and the magnitude of the hazards. The maintenance process distinguishes between emergency work and non-emergency work. It provides a graded approach using a single work package development process. Work packages will be established based upon the six criteria of DOE definition of graded approach. The process permits minor maintenance work (such as repair of water fountains and touch-up painting) to be performed without a work package. It also provides for the use of pre-approved Standard Work Packages for certain repetitive maintenance work. Corrective, preventive, and predictive maintenance will be accomplished for specific equipment based upon a graded approach. Not all items will be maintained to prevent their damage or deterioration.

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- Lessons Learned/Generic Implications

The lessons learned/generic implications process utilizes a graded approach in determining the relative significance of a potential event and in determining the manner that information is distributed to Site organizations and personnel. Both onsite and offsite events and experience documents are screened to determine the applicability of the event or experience to the Site and to determine the significance, recurrence frequency, and recurrence probability. Based on the results of the screening process, four types of lessons learned/generic implication documents are or may be prepared. Urgent Lessons Learned alert onsite facilities and personnel of potential eminent hazards for which corrective actions may be needed. Caution Lessons Learned warn of potential event conditions. Information Lessons Learned provide information that may be of benefit to others. Good Work Practice Lessons Learned share a positive lesson or action that has the potential to be the basis of significant improvement or cost savings. Further, these various Lessons Learned are available electronically, and a Lessons Learned Newsletter for the Site is periodically routed.

- Procedures and Policies

Graded approach has been incorporated into the Site Documents Requirements Manual to address the rigor required or the flexibility granted for various written policies and directives, procedures, work instructions, etc. When responsible managers develop work process documents, this Manual assists them in determining what type of document is best suited for a given activity, and what type of reviews and related concurrence and approval are necessary and sufficient. Procedures continue to be graded by use categories which determine whether they must be in hand for step by step usage, in the area for general reference, use in emergency or alarm response evolutions, etc. Also, the process governing procedure revisions, modifications, and changes is graded by two levels of effort, non-intent changes and intent changes. This distinction provides for varying degrees of concurrence and approval requirements.

Prior to Kaiser-Hill being selected as the Integrating Management Contractor, the Site had over 250 policies in the Policy Manual. Many of the policies contained instructions. The Kaiser-Hill Team reviewed the existing policies and identified a minimum set of approximately 25 policies that express broad fundamental core values, principles, and expectations of senior management regarding the direction of the Site and Site personnel. These policies, along with various Kaiser-Hill Directives, are included in the Kaiser-Hill Policy Manual.

(6) Design - The design process utilizes a graded approach to system category classifications (system category 1 and 2, 3, and 4) for ensuring that all phases of design, construction, repair work, and decommissioning activities are subject to levels of review and control commensurate with the safety function of the system, component, or part. Design verification requirements are established using a graded approach based on importance to safety, the complexity of the design, and the use of the output. (For example: computer software program features used as tools to develop a preliminary model or used merely as an aid in reviewing results need not be verified. However, program outputs used as inputs for final analysis are independently verified correct for each calculation, analysis, evaluation, or

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model.) Many old as-built drawings are not current; therefore, before an as-built drawing is used as input for a system design modification, the affected location must be walked-down and a field-verified as-built drawing generated.

(7) Procurement - The procurement process uses Procurement Levels (1, 2, and 3) representing graded procurement controls which incorporate the level of quality necessary to ensure that procured items and services meet established requirements and perform as specified. Procurement Levels are used to define the method of procurement, and specify acceptance and requirements for purchased items and services. Suppliers used for Procurement Level 1 items and services are evaluated using a graded approach based on relative importance to safety, safeguards, and security. The graded approach applied during the design process provides input to the development of procurement/inspection specifications and determination of the appropriate Procurement Level.

(8) Inspection and Acceptance Testing - Inspection and testing of specified items, services, and processes are conducted utilizing established, acceptance and performance criteria. Engineering and quality personnel, as appropriate, determine inspection criteria and post-maintenance testing requirements for maintenance and modifications. Inspection criteria and post-maintenance testing requirements are identified in maintenance work packages. Purchase requisitions/orders identify the procurement level and the inspection requirements for procured items and services. Other than deciding whether inspection or post-maintenance testing is necessary, there is little grading that can be applied when inspections and post-maintenance testing requirements are based on national codes and technical standards.

(9) Management Assessments - The management assessment process is graded in that it empowers individual senior managers of the Kaiser-Hill Team to direct the development and implementation of management assessment programs for their respective organizations. The programmatic mission of an organization, as it relates to the application of QA requirements, will be a factor in determining the rigor of management assessments. An approved Site Management Assessment document provides the programmatic framework for ensuring that an organization's management assessment program implements the management assessment requirement without being overly prescriptive or restrictive.

(10) Independent Assessment - Independent assessments are planned and conducted to measure item and service quality, to measure the adequacy of work performance, and to promote improvement. Flexibility (grading) in meeting these objectives is prescribed by prioritizing the program, scheduling assessments, and allocating resources in accordance with importance to safety, status, risk, and complexity of the item or process being assessed. Emphasis is placed on elements of activities most important to safety and on the need to evaluate facility performance when allocating assessment resources. Reactive independent assessments are performed in response to management requests, building or equipment problems, occurrence reports, negative performance trends, or unsatisfactory performance indicators. An approved Site Independent Assessment document provides the programmatic framework for ensuring that an organization's independent assessment program implements the independent assessment requirement without being overly prescriptive or restrictive.

ID No.	DOE Order 5700.6C QA Criteria	Imp. Issues	Implementing Infrastructure Programs	Deficiency Implementation Activity (Responsible Organization) Compensatory Action	Scheduled Completion Funding Source PATS Number Significance Level
1	9.b Quality Assurance Criteria (1) Management (a) Criterion 1 - Program Organizations shall develop, implement, and maintain a written Quality Assurance Program. The QAP shall describe the organizational structure, functional responsibilities, levels of authority, and interfaces for those managing, performing, and assessing adequacy of work. The QAP shall describe the management system, including planning, scheduling, and cost control considerations.	No	•Site Quality Assurance Manual •Site Quality Assurance Implementation Plans		

NOTES: 1) Any requested funding applies to DOE Order 5700.6C implementation issues only, unless stated otherwise.

ID No.	DOE Order 5700.6C QA Criteria	Imp. Issues	Implementing Infrastructure Programs	Deficiency Implementation Activity (Responsible Organization) Compensatory Action	Scheduled Completion Funding Source PATS Number Significance Level
2	9.b Quality Assurance Criteria (1) Management (b) Criterion 2 - Personnel Training and Qualification Personnel shall be trained and qualified to ensure they are capable of performing their assigned work. Personnel shall be provided continuing training to ensure that job proficiency is maintained.	Yes	•Site Training Program	**Deficiency:** The training and qualification program has not been completely implemented for SSOC and RMRS activities. **Implementation Activity:** Develop/revise training and qualification program, and implement the necessary training for facility and support personnel. **Compensatory Action:** Continue to provide training on an as-identified basis pending completion of the above implementation activity. Personnel currently performing operational activities are qualified as verified by existing qualification standard packages (Reference Training Users Manual [TUM] 1-31000-COOP-001, Conduct of Operations and 1-31000-COOP-003, Control of On-Shift Training). Whereas these QSPs in some cases need revisions (and in some cases development) to reflect current Site mission activities etc., they are adequate for continued operations. The Management and Independent Assessment Programs are in place to provide appropriate attention to the applicable training program and related training implementation activities. If training needs are identified prior to full training program implementation, specialized training will be developed as needed to support operational activities. Operations activities will not be performed without required training of appropriate personnel documented and in place.	•9/30/97 •WP-MTNG 992400 •96-000789 (SSOC) •3 •4/30/97 •This issue is programmatic in nature (applies to both the QA Rule & Order). Associated funding requested and tracked under the QA Rule IP. No additional funding is being requested here. WAD-44 •96-000781 (RMRS) •10

NOTES: 1) Any requested funding applies to DOE Order 5700.6C implementation issues only, unless stated otherwise.

ID No.	DOE Order 5700.6C QA Criteria	Imp. Issues	Implementing Infrastructure Programs	Deficiency Implementation Activity (Responsible Organization) Compensatory Action	Scheduled Completion Funding Source PATS Number Significance Level
3	9.b Quality Assurance Criteria (1) Management (c) Criterion 3 - Quality Improvement The organization shall establish and implement processes to detect and prevent quality problems and to ensure quality improvement. Items and processes that do not meet established requirements shall be identified, controlled, and corrected. Correction shall include identifying the causes of problems and preventing recurrence. Item reliability, process implementation, and other quality-related information shall be reviewed and the data analyzed to identify items and processes needing improvement.	Yes	•Sitewide Commitments Management and Corrective Actions Process (CM&CAP) •Management Assessment Process •Cause Analysis Process •Lessons Learned Processes	**Deficiency:** The quality improvement process has not been adequately implemented for all Site activities. Elements including root cause analysis, trend identification and analysis, and lessons learned are not being performed in an acceptable manner, and the entire quality improvement process needs to be improved, from problem identification to commitment tracking. Portions of the above process are being implemented, but they do not always result in the development of effective corrective actions to prevent recurrence, the timely completion of needed actions, or in notification to other organizations of problems that potentially affect them. (Ref. Noncompliance Tracking System [NTS] #NTS-RFO-KHLL-Sitewide-1996-0001). **Implementation Activity:** Fully implement the quality improvement process for all Site activities. **Compensatory Action:** A root cause analysis (CA-96-004, dated 9/19/96) was performed regarding the lack of adequate recurrence controls associated with an effective corrective action program. This analysis was evaluated for appropriate corrective actions to improve the Site process, with an appropriate path forward plan to be developed, approved, and tracked in PATS. This is complete and the recommended actions are pending budget allocations. In the interim, Site management has focused increased attention on the Site corrective action program and has implemented various compensatory actions as identified in correspondence RGC-146-96 dated 10/15/96.	•10/31/97 •WP-MTNG-886080 •96-001826 (SSOC) •9 •9/30/97 •$271,000 is needed to complete this work as documented through the Site budget process. (See Note 2 below) •96-000953 (K-H Team) •9

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2) Completion date of 9/30/97 is based on receiving the referenced funding by 9/97.

ID No.	DOE Order 5700.6C QA Criteria	Imp. Issues	Implementing Infrastructure Programs	Deficiency Implementation Activity (Responsible Organization) Compensatory Action	Scheduled Completion Funding Source PATS Number Significance Level
4	9.b Quality Assurance Criteria (1) Management (d) Criterion 4 - Documents and Records Documents shall be prepared, reviewed, approved, issued, used, and revised to prescribe processes, specify requirements, or establish design. Records shall be specified, prepared, reviewed, approved, and maintained.	Yes	Site Documents Requirements Manual •Integrated Work Control Program (IWCP) •Document Control/Records Management •Configuration Change Control Program (CCCP)/Conduct of Engineering Manual (COEM)	**Deficiency:** The Site records management system does not provide for storage of RMRS Quality Assurance Records until those records have been determined by RMRS to be inactive (i.e., no longer needed to conduct business). **Implementation Activity:** Complete selection and implementation of an appropriate records imaging system that will allow for high resolution and cost effective records reproduction in accordance with the "Joint Information Management Strategy in Support of the Site Closure Project" dated 1-31-97. Prepare records for imaging. **Compensatory Action:** Since active Quality Assurance Records may remain in RMRS' possession for years, adequate procedural controls have been developed (currently in the review process which will include endorsement by Site Records Management) which will adequately control and protect QA records until the referenced implementation activity is complete. The RMRS records group under Administrative Services Division, has been assigned to administer RMRS "in-house" records prior to their transfer to the Site Records Management (SRM) organization. The RMRS records group has briefed the appropriate RMRS personnel on the criteria for identification of QA records, and on implementation of interim control measures prior to records turnover to SRM. During the implementation of the subject imaging system and associated procedures and documentation, RMRS records are being transmitted for temporary storage to the RMRS records staging area currently located in Building 116.	•5/31/97 •This issue is programmatic in nature (applies to both the QA Rule & Order). Associated funding requested and tracked under the QA Rule IP. No additional funding is being requested here. WAD-24 •96-000778 (RMRS) •10

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ID No.	DOE Order 5700.6C QA Criteria	Imp. Issues	Implementing Infrastructure Programs	Deficiency Implementation Activity (Responsible Organization) Compensatory Action	Scheduled Completion Funding Source PATS Number Significance Level
5	9.b Quality Assurance Criteria (2) Performance (a) Criterion 5 -Work Processes Work shall be performed to established technical standards and administrative controls. Work shall be performed under controlled conditions using approved instructions, procedures, or other appropriate means. Items shall be identified and controlled to ensure their proper use. Items shall be maintained to prevent their damage, loss, or deterioration. Equipment used for process monitoring or data collection shall be calibrated and maintained.	Yes	•IWCP •COOP •Site Documents Requirements Manual •Procurement Process •CCCP/COEM •Emergency Preparedness •Waste Management •Control of M&TE	**Deficiency:** Lack of acceptance criteria and process controls for RMRS receipt of products and services from other Site contractors. **Implementation Activity:** Develop criteria for the acceptance of products and services between Site contractors. **Compensatory Action:** Since the existing Site procurement process, including quality reviews, is not directly applicable to the receipt of products and services between Principal Subcontractors, RMRS will develop case-specific letters of agreement with other Principal Subcontractors for acceptance of products and services until specific acceptance criteria can be developed.	•4/30/97 •This issue is programmatic in nature (applies to both the QA Rule & Order). Associated funding requested and tracked under the QA rule IP. No additional funding is being requested here. WAD-4 •96-000782 (RMRS) •10

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ID No.	DOE Order 5700.6C QA Criteria	Imp. Issues	Implementing Infrastructure Programs	Deficiency Implementation Activity (Responsible Organization) Compensatory Action	Scheduled Completion Funding Source PATS Number Significance Level
6	9.b Quality Assurance Criteria (2) Performance (a) Criterion 5 - Work Processes	Yes	•IWCP •COOP •Site Procedure Process •Procurement Process •CCCP/COEM •Emergency Preparedness •Waste Management •Control of M&TE	**Deficiency:** Site procedures and other work control documents (excluding IWCP work packages) need to be reviewed and updated, revised, rewritten as a job instruction, deleted or developed, as appropriate to reflect the IMC concept, organization, and desired method of doing work. Some SSOC facility-specific and support organization procedures need to be developed/revised and implemented. **Implementation Activity:** Define the requirements for the documentation life cycle and review and revise the Site document hierarchy, as appropriate. Develop the criteria for elimination of unnecessary or obsolete documentation. Develop an implementation plan for revising procedures and work control documents. Based on assigned scope of work, and applicable documentation requirements, prepare/revise facility and support organization procedures. **Compensatory Action:** George O'Brien letter to "All Site Personnel," dated 6/29/95, instructed the Site to use the existing procedures until properly revised or canceled. The letter transmitted information for correlating old EG&G organizations with new Kaiser-Hill and Principal Subcontractor organizations, detailed key operational title changes, and provided points of contact for procedures within each Site organization. It also emphasized that if employees were "uncertain about what to do, how to do it, or what procedures apply" to their work, that they should stop and contact their manager, supervisor, or foreman. A Site Documents Requirements Manual has been developed and approved that should expedite document revisions under the current Site organizations structure. The schedule for procedural updates will be driven by Responsible Managers on an as needed basis, but as a minimum, will meet the periodic review requirements specified in the Site Documents Requirements Manual. Kaiser-Hill Team activities will be conducted in accordance with existing infrastructure, memorandums of understanding, operations orders, etc. until needed procedures are developed/revised.	•3/30/98 •Included in various existing WAD Funding •95-004416 (K-H Team) •Medium •3/30/98 •WP-MTNG-992500 •96-001847 (SSOC) •6 •3/30/98 •WAD-25, Additional $98,115 required as documented through the Site budget process (See Note 2 below) •97-000111 (DCI) •4 •3/31/98 •WAD-2 •96-000779 (RMRS) •10

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2) Completion date of 3/30/98 is based on receiving the referenced funding by 1/97.

Attachment 1
Implementation Issue Matrix
For Quality Assurance DOE Order 5700.6C Implementation Plan

ID No.	DOE Order 5700.6C QA Criteria	Imp. Issues	Implementing Infrastructure Programs	Deficiency Implementation Activity (Responsible Organization) Compensatory Action	Scheduled Completion Funding Source PATS Number Significance Level
7	9.b Quality Assurance Criteria (2) Performance (a) Criterion 5 - Work Processes	Yes	•IWCP •COOP •Site Procedure Process •Procurement Process •CCCP/COEM •Emergency Preparedness •Waste Management •Control of M&TE	**Deficiency:** Current funding levels and budget utilization rates will preclude continuance of metrology operations or seriously reduce metrology laboratories effectiveness after May 1997. This projection is based on various factors, including labor expenditures, number of calibrations performed, etc. **Implementation Activity:** Full requirement implementation and compliance is contingent upon acquiring necessary funding to continue operations beyond May 1997. **Compensatory Action:** If compensatory actions are needed after 5/97, they will be implemented based on risk assessments and graded approaches, however, currently the metrology program for the Site is adequate and in compliance with program requirements.	•TBD •WAD-40; Require additional $427,876 for FY97 •97-000109 •4

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8	9.b Quality Assurance Criteria (2) Performance (b) Criterion 6 - Design Items and processes shall be designed using sound engineering/ scientific principles and appropriate standards. Design work, including changes, shall incorporate applicable requirements and design bases. Design interfaces shall be identified and controlled. The adequacy of design products shall be verified or validated by individuals or groups other than those who performed the work. Verification and validation work shall be completed before approval and implementation of the design.	Yes	•CCCP/COEM •Software Management Program	**Deficiency:** Failures of various organizations to comply with the Site Software Management Program constitutes programmatic breakdown. Quality assurance controls for developing, obtaining, deploying, or using software contained in 1-45000-CSM-001 are not being followed; the procedure is outdated since the cancellation of DOE Order 1330.1C. **Implementation Activity:** Issue will be addressed by revision of 1-45000-CSM-001 to incorporate DOE Order 5700.6C requirements using a graded approach. **Compensatory Action:** Use existing procedure until revised. Software with significant safety implications (for example: WEMS) have existing user organization-specific enhanced design and configuration control which will continue to be used at the Site	•7/10/97 •WAD-44 •96-000787 (K-H Team) •6
9	9.b Quality Assurance Criteria (2) Performance (b) Criterion 6 - Design	Yes	•CCCP/COEM •Software Management Program	**Deficiency:** SSOC has not identified design authority/design agent responsibilities. **Implementation Activity:** The following action will be accomplished to implement the Site Engineering and Design infrastructure program and procedures: Establish design authority and design agent responsibilities. (SSOC) **Compensatory Action:** Letter RMS-018-95 was issued giving SSOC technical support managers the authority to approve Engineering products.	•9/30/97 •WP-MTNG99TB •96-001243 (SSOC) •6

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ID No.	DOE Order 5700.6C QA Criteria	Imp. Issues	Implementing Infrastructure Programs	Deficiency Implementation Activity (Responsible Organization) Compensatory Action	Scheduled Completion Funding Source PATS Number Significance Level
10	9.b Quality Assurance Criteria (2) Performance (c) Criterion 7 - Procurement The organization shall ensure that procured items and services meet established requirements and perform as specified. Prospective suppliers shall be evaluated and selected on the basis of specified criteria. The organization shall ensure that approved suppliers can continue to provide acceptable items and services.	No	•IWCP •CCCP/COEM •Procurement Process		
11	9.b Quality Assurance Criteria (2) Performance (d) Criterion 8 - Inspection and Acceptance Testing Inspection and acceptance testing of specified items and processes shall be conducted using established acceptance and performance criteria. Equipment used for inspections and tests shall be calibrated and maintained.	Yes	•Control of M&TE •IWCP •CCCP/COEM •Procurement Process	**Deficiency:** Current Fire Protection Program budget allocations do not include sufficient funding levels to provide continued fire protection inspection activities past August 1997. **Implementation Activity:** Full requirement implementation and compliance is contingent upon acquiring necessary funding to continue operations beyond August 1997. **Compensatory Action:** If compensatory actions are needed after 8/97, they will be implemented based on risk assessments and graded approaches. Program assessment is ongoing.	•10/1/97 •WAD-40; Require additional $71,342 for FY97 •97-000110 (DCI) •4

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ID No.	DOE Order 5700.6C QA Criteria	Imp. Issues	Implementing Infrastructure Programs	Deficiency Implementation Activity (Responsible Organization) Compensatory Action	Scheduled Completion Funding Source PATS Number Significance Level
12	9.b Quality Assurance Criteria (3) Assessment (a) Criterion 9 - Management Assessment Management at all levels shall periodically assess the integrated quality assurance program and its performance. Problems that hinder the organization from achieving its objectives shall be identified and corrected.	Yes	•Commitments Management and Corrective Action Process •Management Assessment •Compliance Management	**Deficiency:** Management Assessments are not being performed consistently across SSOC managed non-nuclear facilities. **Implementation Activity:** Begin performing management assessments in accordance with SSOC implementation procedure, 3-X37-SSOC-MAP-001, SSOC Management Assessment Program for activities under 5700.6C. **Compensatory Action:** SSOC managers will continue to apply established assessment approaches (e.g., procedures 1-P45-MA-001, Management Assessment Program, and Management Assessment Implementation Guide and 96-IA-0007, Independent Assessment Program) until the SSOC management assessment procedure is implemented.	•4/30/97 •WP-MTNG-99GC04 • 97-000133 (SSOC) •3
13	9.b Quality Assurance Criteria (3) Assessment (b) Criterion 10 - Independent Assessment Planned and periodic independent assessments shall be conducted to measure item quality and process effectiveness and to promote improvement. The organization performing independent assessments shall have sufficient authority and freedom from the line organization to carry out its responsibilities. Persons conducting independent assessments shall be technical qualified and knowledgeable in the areas assessed.	No	•Independent Assessment Process		

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